



Please type a plus sign (+) inside this box →



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0851-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 3

Complete if Known

Application Number	10/730,272
Filing Date	December 9, 2003
First Named Inventor	Laval Chan Chun KONG
Group Art Unit	1624
Examiner Name	Unassigned
Attorney Docket Number	Viro-0005

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
u		4,180,662		Pfister et al.	12/25/1979	
		6,187,799		Wood et al.	02/13/2001	
		6,747,057		Ruzafa et al.	6/2004	
		6,734,207		Uckun et al.	5/2004	
		6,660,732		Betageri et al.	12/2003	
		6,660,728		Scheunemann et al.	12/2003	
		6,620,767		Ducray et al.	9/2003	
		6,448,290		Ohuchida et al.	9/2002	
		6,414,013		Fancelli et al.	7/2002	
u		6,380,214		Gant et al.	4/2002	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Ts
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
u		WO	98/52558			11-26-1998		
		WO	02/28353			04-11-2002		
		JP	7-48360			02-21-1995		
		DE	199 20 247A			11-16-2000		
u		DE	199 03 398A			08-10-2000		

Examiner
Signature

Chy

Date
Considered

3/20/06

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box +

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
Application Number		10/730,272	
Filing Date		December 9, 2003	
First Named Inventor		Laval Chan Chun KONG	
Group Art Unit		1624	
Examiner Name		Unassigned	
Attorney Docket Number		Viro-0005	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
u		David McKinnon et al., "The Conversions of Isothiazolium Salts into Thiophenecarboxylic Ester Derivatives", <i>Can. J. Chem.</i> , 1984, Vol. 62, pp. 1580-1584	
		Pilar Goya et al., "Synthesis of 4-Oxo-3,4-dihydro-1 H-thieno [3,4-c] and thieno [3,2-c][1,2,6]thiadiazine 2,2-Dioxides, <i>Synthesis</i> , April 1989, pp. 280-282	
		Bo Sung Kim et al., "Reactions of Thiaroylketene S,N-Acetals with 1,3-Dicarbonyl Compounds in the Presence of Mercury (II) Acetate: A General Route to 2-Acy- and 2-Aroyl-3-(alkylamino)-5-arylthiophenes and 2-(Ethoxycarbonyl)-3-(methylamino)-5-arylthiophenes", <i>J. Org. Chem.</i> , 1988, Vol. 53, pp. 6086-6087	
		Bo Sung et al., "A Facile and Convenient Synthesis of 3-Alkylamino-5-arylthiophenes with a Variety of Substituents at C-2 and Studies of Reaction Mechanisms", <i>J. Org. Chem.</i> , 2000, Vol. 65, pp. 3690-3699	
		Ya. L. Goldfarb et al., "ACTION OF ALKALI METALS IN LIQUID AMMONIA ON SUBSTITUTED THIOPHENES. COMMUNICATION 9. PREPARATION OF 5-MERCAPTO-4-KETOALKANOIC ACIDS BY REDUCTIVE CLEAVAGE OF 4-ACETYLAMINO- AND 4-NITROTHIOPHENE-2-CARBOXYLIC ACIDS", <i>Izv. Akad. Nauk SSSR, Ser. Khim.</i> , 1984, Vol. 10, pp. 2136-2139	
		J. R. Desai et al.; J. IND. CHEM. SOC., Vol. 74, 1987, p. 160, "Thieno[3,2-d]pyrimidines - Part-I: Preparation and Antimicrobial Activity of 3-N-Substituted-thioureido-2-methyl-6-phenylthieno[3,2-d]pyrimidin-4(3H)-ones", ISR ref. XP002220249.	
		E. Marchand, G. Morel, BULL. SOC. CHIM. FR. Vol. 133, No. 9, 1996, p. 803-812, "Alpha-Thioxothioamides Reactions de cycloaddition [4+2] avec l'acetylenedicarboxylate de dimethyle et le propiolate de methyle", ISR ref. XP002220251.	
		W. Kantlehner et al., J. Prakt. Chem., Vol. 338, 1986, p. 403-413; "Orthoamide, II. Umsetzungen von Orthoamid-Derivaten mit Schwefel und Selen, Synthesen von 1,3-Thiazol- und 1,3-Selenazolderivaten" ISR ref. XP002220245.	
		S. Vega et al., Eur. J. Med. Chem. Vol. 23, No. 4, 1988, p. 329-334; "Thiophene Isosteres: Synthesis and Pharmacological Study of 3-(azol-1-yl)thieno isothiazole-1,1-dioxides" ISR ref. XP002220246.	
u		R.A. Smith et al., Bioorg. Med. Chem. Lett. Vol. 11, No. 20, 2001, p. 2775-2778; "Discovery of Heterocyclic Ureas as a New Class of Raf Kinase Inhibitors: Identification of a Second Generation Lead by a Combinatorial Chemistry Approach", ISR ref. XP001118699.	

Examiner Signature		Date Considered	3/20/06
-----------------------	--	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → +

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitutes for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known	
Application Number	10/730,272	Filing Date	December 9, 2003
First Named Inventor	Laval Chan Chun KONG	Group Art Unit	1624
Examiner Name	Unassigned	Attorney Docket Number	Viro-0005
Sheet 3 of 3			

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
a		B.S. Kim et al., J. Org. Chem. Vol. 63, No. 18, 1998, p. 6086-6087, "Reactions of Thioaroylketene S,N-Acetais with 1,3-Dicarbonyl Compounds in the Presence of Mercury(II) Acetate: A General Route to 2-Acyl- and 2-Aroyl-3-(alkylamino)-5-arythiophenes and 2-(Etoxcarbonyl)-3-(methylamino)-5-arythiophenes"; ISR ref. XP001118697.	
		A.M. Redman et al., Bioorg. Med. Chem. Lett., Vol. 11, 2001, p. 9-12; "P38 Kinase Inhibitors for the Treatment of Arthritis and Osteoporosis: Thienyl, Furyl, and Pyrrolyl Ureas", ISR ref. XP004225311.	
		D.J. Lee et al., Chemical Abstracts Service, Columbus, OH, U.S., "Novel Synthesis of 5,6-Dihydro-4H-thieno[3,2-b]pyrrol-5-ones via the Rhodium(II)-Mediated Wolff Rearrangement of 3-(2-Thienyl)-3-oxo-2-diazopropanoates"; Database accession no. 2002:151873, ISR ref. XP002220252.	
		M. Sugiyama et al., Chem. Pharm. Bull. Vol. 37, No. 8, 1989, p. 2091-2102; "Condensed Thienopyrimidines. I. Synthesis and Gastric Antisecretory Activity of 2,3-Dihydro-5H-oxazothienopyrimidin-5-one Derivatives", ISR ref. XP001118351.	
		J.C. Lancelot et al., J. Heterocycl. Chem. Vol. 33, No. 2, 1996, p. 427-430; "A Facile Synthesis of New Beta-Lactams", ISR ref. XP002220247.	
		D.M. McKinnon et al., Can. J. Chem. Vol. 62, No. 8, 1984, p. 1580-1584; "The Conversion of Isothiazolium Salts into Thiophenecarboxylic Ester Derivatives", ISR ref. XP002220248.	
		J.R. Desai et al., J. Inst. Chemists (INDIA) Vol. 67, 1995, p. 136-137, "Thieno[3,2-d]pyrimidines - Part - II: Preparation and Antimicrobial Activity of 2-methyl-3-N-Arylsulphonamido-6-Phenylthieno[3,2-d]Pyrimidin-4(3H)-ones", ISR ref. XP002220249.	
		Co-pending Serial Application No. 10/166,031, filed June 11, 2002	
v		Co-pending Serial Application No. 11/042,442, filed January 28, 2005	

Examiner Signature	Chy	Date Considered	3/20/06
--------------------	-----	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.